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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,974	05/08/2001	Teruo Matsui	Q64407	1296

7590 07/21/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

WARE, CICELY Q

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 07/21/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,974

Applicant(s)

MATSUI ET AL.

Examiner

Cicely Ware

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet **within the range of 50 to 150 words**. It is important that the abstract **not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because

- a. Pg. 13, lines 20 and 21, applicant uses the phrase "attenuators being set a level selection". Examiner suggests using "attenuators being set to a level selection" for clarification purposes.

Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

- a. Pg. 2, lines 11-13, examiner suggests applicant re-write these lines for clarification purposes.

- b. Pg. 3, line 17, applicant uses the phrase "structure simple and economy". Examiner suggests using "structure simple and economic" for clarification purposes.

c. Pg. 3, lines 21-23, examiner suggests applicant re-write these lines for clarification purposes.

d. Pg. 3, line 25, applicant uses the phrase "elements being set a level selection". Examiner suggests using "elements being set to a level selection" for clarification purposes.

e. Pg. 4, line 1, applicant uses the phrase "are laid inside building". Examiner suggests using "are laid inside a building" for clarification purposes.
Appropriate correction is required.

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claim 1 is objected to because of the following informalities:

a. Claim 1, lines 8-9, examiner suggest applicant re-write these lines for clarification purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Fig. 1) in view of Geyer, Jr. et al. (US Patent 4,612,549).

(1) With regard to claim 1, Applicant's admitted prior art discloses in (Fig. 1) transmitting-receiving station for use in radio wave diversity comprising two antennas (121, 131) having a predetermined distance there between for use of space-diversity, a distributor-composer (130) and a transceiver (40); further comprising: at least one of prefixed adjusters (122) supplied between any one of said antennas and said distributor-composer (130), and each two values of phases, levels, and delay times of the signals dependent of said two antennas respectively so as to be made the same value each other on a connecting point of said distributor-composer (Pg. 2, lines 1-24).

However Applicant's admitted prior art does not disclose manually adjusting and fixing each two values of phases, levels, and delay times of the signals dependent of said two antennas respectively.

However Geyer, Jr. et al. discloses manually adjusting and fixing each two values of phases, levels, and delay times of the signals (Fig.1, (11,12, 34), col. 3, lines 50-56, col. 4, lines 23-44, col. 6, lines 28-33, col. 7, line 32, col. 8, lines 17-22, col. 9, lines 24-36).

Therefore it would have been obvious to one of ordinary skill in the art to modify the Applicant's admitted prior art to incorporate manually adjusting and fixing each two values of phases, levels, and delay times of the signals in order to achieve the desired 180 degree phase shift around the correlation loop to insure loop stability and optimum cancellation (Geyer, Jr. et al., col. 3, lines 53-56).

(2) With regard to claim 2, Applicant's admitted prior art further discloses in (Fig. 1) a distributor-composer (130) connecting to said two antennas on one side (131, 121), distributing a signal to be transmitted from said transceiver (40), and composing two signals to be received from said two antennas and a transceiver (40) connecting to the other side of said distributor-composer (130) (Pg. 2, lines 1-24).

Allowable Subject Matter

8. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made record and not relied upon is considered pertinent to applicant's disclosure:

a. Greenberger US Patent 5,870,484 discloses a loudspeaker array with signal dependent radiation pattern.

b. Ichihara et al. US Patent 5,355,101 discloses a quadrature modulator having circuit for correcting phase error.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
July 7, 2004


STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2800